WHAT IS CLAIMED IS:

1. A polynucleotide which induces anti-HSV antibodies or protective immune responses upon introduction into vertebrate tissue, wherein said polynucleotide comprises at least one gene encoding at least one HSV protein or functional equivalents thereof, said genes being operably linked to a transcription promoter.

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2. The polynucleotide of Claim 1, wherein said gene encodes an HSV protein selected from a group consisting of gB, gC, gD, gH, gL, ICP27, and functional equivalents thereof.

3. The polynucleotide of Claim 1 wherein said gene encodes a carboxy-terminal truncated gB protein.

4. The polynucleotide of Claim 3 wherein said truncated gB deletion comprises the amino terminal 707 amino acids of wild type gB.

5. The polynucleotide of Claim 4 which is V1Jns:ΔgB.

6. The polynucleotide of Claim 2 wherein said gene encodes the HSV protein, gD.

7. The polynucleotide of Claim 6 which is V1Jns:gD.

8. A vaccine for inducing an immune response against HSV which comprises a first polynucleotide which expresses the HSV protein gD and a second polynucleotide which expresses a carboxy-terminal truncated gB protein.

9. A vaccine of claim 8 wherein said first polynucleotide is V1Jns:gD.

10. A vaccine of claim 8 wherein said second polynucleotide is V1Jns:ΔgB.

11. A vaccine of claim 10 wherein said first polynucleotide is V1Jns:gD.

12. A method for inducing immune responses in a vertebrate against HSV epitopes which comprises introducing vaccine according to Claim 11 into a tissue of a vertebrate.

13. A vaccine for inducing immune responses against HSV which comprises the polynucleotides of Claim 11 and a pharmaceutically acceptable carrier.